

DISPLAYS

FAQ

Q What is DisplayPort, and do I need it?

A DisplayPort is being promoted as the successor to DVI. DVI's bandwidth is only just enough to handle resolutions such as the Dell's 3008WFP's 2,560x1,600. Higher resolutions would force a reduction in refresh rate. HDMI has similar limitations, but this isn't as big a problem since HD TVs won't go beyond 1,920x1,080 for many years.

The current version 1.1 of DisplayPort has similar limitations to dual-link DVI, but greater bandwidth is promised this year. It should be enough to cater for resolutions of 3,840x2,400. DisplayPort graphics cards are also capable of driving LCD panels directly without requiring much of the current electronics, meaning DisplayPort displays could be slimmer and cheaper.

It's too early to tell whether DisplayPort will be the new standard for digital displays. There's competition from HDMI, and consumers and manufacturers are very slow to abandon old standards, as the 3008WFP's many inputs ably demonstrate.

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PANASONIC PT-AX200E

★★★★★

£737 inc VAT

From www.digitaldirect.co.uk



The PT-AX200E is one of the brightest 720p home cinema projectors we've seen thanks to its 2,000 lumens lamp. This extra brightness means the projector is more flexible than most. For example, you can enjoy films, sports and games in daylight without having to close your curtains.

A light sensor detects the ambient level and adjusts the dynamic iris, gamma settings and lamp power accordingly. This means you don't have to make constant adjustments to the settings, although manual controls are also provided.

In a darkened room you benefit from the 6,000:1 dynamic contrast ratio. In our tests, image quality was excellent and the great contrast helped to resolve detail in darker areas. Skin tones looked realistic, and colours were vibrant. Motion was smooth, with no unsightly jagged edges or juddering. This is the best-quality 720p LCD projector we've seen. What's more, because it's LCD there's no rainbow effect, from which DLP projectors often suffer.

The PT-AX200E will accept HD inputs at resolutions up to 1080p, and it does a good job of scaling video to its native 1,280x720 resolution. It's also compatible with 24p video found on Blu-ray discs. This retains a movie's original 24 frames per second (fps) to give a more cinematic appearance to motion. There are two HDMI inputs as well as one set of component connectors for HD sources. Standard definition set-top boxes have to be connected via S-video or composite.



As well as the usual range of preset modes such as Natural, Dynamic and Cinema, the PT-AX200E has a Game mode. This reduces the image processing time to a minimum to ensure almost instant response times. It also boosts gamma levels in darker areas of the screen, so you won't miss any critical details. We can't say we noticed the former, but the latter is welcome.

It's a good-looking projector and quiet, producing only 25dBA at standard settings. Positioning should be easy thanks to the 2x zoom ratio. You can project a 120in image at a throw distance of 3.7m to 7.4m. Despite the relatively low price, the PT-AX200E even has lens shift. This lets you adjust where the lens points, vertically and horizontally, so you don't need to place the projector squarely in front of the screen.

The lamp lasts for a respectable 2,000 hours, but with replacements costing £245 including VAT, running costs are well above average at roughly 12p an hour.

Eco mode should increase lamp life significantly, at the cost of brightness, though Panasonic couldn't give us figures for either brightness or hours in this mode.

The PT-AX200E costs around £100 more than our current Best Buy, BenQ's W500. The W500 is cheaper to run at only 8p an hour. However, if you want to use your projector with the curtains open or you play games regularly, the PT-AX200E is a better choice.

Seth Barton

SUMMARY

- ✓ Powerful bulb
- ✓ Great picture quality
- ✗ Relatively expensive to run

HOME CINEMA LCD PROJECTOR
1,280x720 resolution, 6,000:1 contrast ratio, 2,000 ANSI lumens, 2x HDMI, VGA, component, S-video, and composite inputs
PART CODE PT-AX200E
DETAILS www.panasonic.co.uk

Also consider...

EPSON EMP-822

★★★★★

£687 inc VAT

From www.lambdatek.com/componentshop

The EMP-822 has a bright 2,600 lumens lamp that will make a big impact under almost any lighting conditions. The multiple inputs and network management make it ideal for permanent mounting. The sliding door helps to protect the lens when carrying it from room to room. It's a well-featured projector, though a little big for use on the road.



OFFICE LCD PROJECTOR 1,024x768 resolution, 400:1 contrast ratio, 2,600 ANSI lumens, 1.2x zoom, 2x VGA, S-video, composite and phono inputs
PART CODE V11H256040DA
DETAILS www.epson.co.uk
FULL REVIEW Apr 2008

HAZRO HZ30WS

★★★★★

£821 inc VAT

From www.routeoic.com

This monitor's massive 2,560x1,600 native resolution gives you a huge desktop to work with, and image quality is good enough for graphics professionals. There's only a single dual-link DVI input and you don't get frills such as a USB hub or adjustable stand, but despite this Hazro's HZ30WS is still good value.



30in WIDESCREEN LCD 2,560x1,600 native resolution, 1,000:1 contrast ratio, 300cd/m² brightness, dual-link DVI
PART CODE HZ30WS
DETAILS www.hazro.com
FULL REVIEW Apr 2008

OPTOMA EP727

★★★★★

£372 inc VAT

From www.lambdatek.com/componentshop

Optoma's EP727 is a tiny projector that weighs just 2kg. It has an HDCP-compatible DVI input, and can scale 720p and 1080i HD material to its native resolution. Because it uses DLP, there's a slight rainbow effect but colours are accurate and focus pin sharp. Our dark screen looked black, while whites were bright and clean. It's a great all-rounder.



OFFICE DLP PROJECTOR 1,024x768 native resolution, 2,200:1 contrast ratio, 2,200 ANSI lumens
PART CODE EP727
DETAILS www.optoma.co.uk
FULL REVIEW Feb 2008

DELL

Ultrasharp 3008WFP

★★★★

£1,033 inc VAT

From www.overclockers.co.uk

At first glance, this 30in monitor looks overpriced, largely because big LCD TVs and 22in monitors are so cheap now. However, the 3008WFP's huge 2,560x1,600 native resolution gives it a big advantage. It has 16 per cent more pixels than a pair of 1,680x1,050 22in monitors put together.

Most monitors with this resolution and price are aimed at graphics professionals. With HDMI, component, S-video and composite inputs, it's clear Dell is targeting rich consumers. There's even a brand new DisplayPort connection (see FAQ, opposite). Sadly, you're paying a premium for an interface that none of your existing hardware can take advantage of.

Overall, image quality was excellent. The high 3,000:1 contrast ratio was apparent in testing, combining with the reasonable brightness level to give plenty of detail in dark areas. Our greyscale test pattern was smooth, showing that this LCD can accurately display gently graduated shading. Test photos showed natural-looking skin tones, and bright colours were vibrant. The 8ms response time was also sufficient for fast action scenes or gaming.

We did notice a slightly grainy finish to the display. This is particularly evident if you are sitting very close to it. The backlighting on our test model wasn't completely even, either. There were darker patches in the top corners. These would be minor considerations on a £200 monitor, but it's disappointing at this price.



Still, the 3008WFP is an excellent choice for gadgets fans with all its video inputs. It's easy to connect a Blu-ray player, games console, HD camcorder or an S-video equipped Freeview or Sky+ box. Video scaling was competently handled and HD video content was upscaled without problems. There's an option for 16:9 content (since this is a 16:10 display), which ensures you don't get distorted images.

The design is stylish, though the stand has only a 100mm range of height adjustment. The bottom of the monitor sits 135mm off the desk when fully raised. It rotates on its stand, but doesn't pivot.

There's a four-port USB2 hub, plus a memory card reader supporting SD (and SDHC), MMC, MS/PRO, xD and CF formats.

Hazro's 30in HZ30WS (reviewed in *What's New, Shopper* 242) has superior image quality and costs £212 less, but has only a single dual-link DVI input. The 3008WFP is the best choice for anyone who wants a huge PC monitor for use with multiple video sources and isn't fazed by the imperfect backlighting.

Seth Barton

SUMMARY

- ✓ Plenty of video inputs
- ✓ Very high resolution
- ✗ Uneven backlighting

30in WIDESCREEN LCD 2,560x1,600 native resolution, 3,000:1 contrast ratio, 370cd/m² brightness, 2x dual-link DVI, DisplayPort, HDMI, VGA, component, S-video and composite inputs
PART CODE 210-19737
DETAILS www.dell.com/uk

CHOOSING A...
Projector

Follow the steps to find your ideal specs

NATIVE RESOLUTION: 1,024x768

BRIGHTNESS: 1,000 ANSI lumens

CONTRAST RATIO: 500:1

LAMP LIFE: 2,000 hours

CHECK: Weight, throw distance, noise

Recommended minimum in grey

1 Low-cost projectors make two main sacrifices. The brightness, measured in ANSI lumens, will be relatively low and the native resolution will be limited to 1,024x768. Neither need be serious drawbacks if you want to use your projector for presentations or DVDs.

If you want to be ready for High Definition video, though, you'll need a projector with a resolution of at least 1,280x720 and either an HDMI port or HDCP-compliant DVI port.

2 Image quality is obviously important, but this is hard to assess from specifications alone. A high contrast ratio (over 500:1) adds depth to the picture and is usually a benefit of digital light processing (DLP) projectors rather than those using LCD technology. The quality of the optics and colour balance cannot be gauged without consulting a review, though.

3 Consider where you'll be using your projector; size and weight are important if the unit will be moved around a lot. You should aim for under 3kg if portability is an issue. Small rooms demand a quiet (sub-33dB) projector and a flexible throw distance; this tells you how close or far away the screen can be. Almost all projectors can mirror or rotate their image to cope with ceiling mounting or rear projection.

4 Check that the projector can cope with all the signals you might want to feed it. Common video formats are supported by almost all projectors, but high-resolution VGA signals and HDMI may not be. Highly detailed images will display at their best only on pricier projectors with a high-definition resolution.

5 The brightness of the projector will depend on where you need to use it. Projectors with 1,000 ANSI lumens are fine for darkened rooms, but for meeting rooms you should get a minimum of 1,300 ANSI lumens. Remember brighter projectors will cost more to run as their bulbs need replacing more often. An ECO mode increases bulb life but reduces the brightness of the projector.

BENQ
W500

★★★★★

£640 inc VAT

From www.rankhour.com

BEST BUY BenQ's W500 widescreen 720p LCD projector is great quality and very quiet. When connected digitally to a PC, it displayed a crisp Windows desktop. The quality of standard-definition clips blew us away, and it handled HD movie clips with ease, producing rich colours and plenty of detail. The W500 provides a good range of features and great image quality at a reasonable price, too.



HOME CINEMA LCD PROJECTOR
1,280x720 native resolution, 5,000:1 contrast ratio, 1,100 ANSI lumens
PART CODE 9JJK77.B5E
FULL REVIEW Feb 2008

LG
37LC55

★★★★★

£443 inc VAT

From www.digitaldirect.co.uk

PRICE CUT!

BEST BUY LG's 37LC55 looks fabulous and has the performance to match. It's great for standard interlaced video but comes into its own when handling high-definition (HD) material and progressive-scan DVDs. Colours are rich and natural, and focus over VGA and DVI is pin-sharp. This is a great TV at a very good price.



37in LCD TV 1,366x768 native resolution, VGA, component, 2x SCART, digital tuner
PART CODE 37LC55 DETAILS www.lge.com
FULL REVIEW Nov 2007

TOSHIBA
Regza
32C3030

★★★★★

£398 inc VAT

From www.pcworld.co.uk

BEST BUY Picture quality from HD footage and our progressive-scan DVD was perfect with the 32C3030. Colours were rich and deep, and blacks looked black. This TV puts in a good all-round performance for a very reasonable price.



32in LCD TV 1,366x768 native resolution, 4,000:1 contrast ratio, 2x HDMI, VGA, component, 2x SCART
PART CODE 32C3030
DETAILS www.toshiba.co.uk
FULL REVIEW Nov 2007